

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
10 June 2004 (10.06.2004)

PCT

(10) International Publication Number
WO 2004/049371 A2

(51) International Patent Classification⁷: **H01J 1/00**

(21) International Application Number:
PCT/IB2003/005180

(22) International Filing Date:
14 November 2003 (14.11.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
102 54 697.5 23 November 2002 (23.11.2002) DE

(71) Applicant (for DE only): **PHILIPS INTELLECTUAL PROPERTY & STANDARDS GMBH [DE/DE]**; Stein-damm 94, 20099 Hamburg (DE).

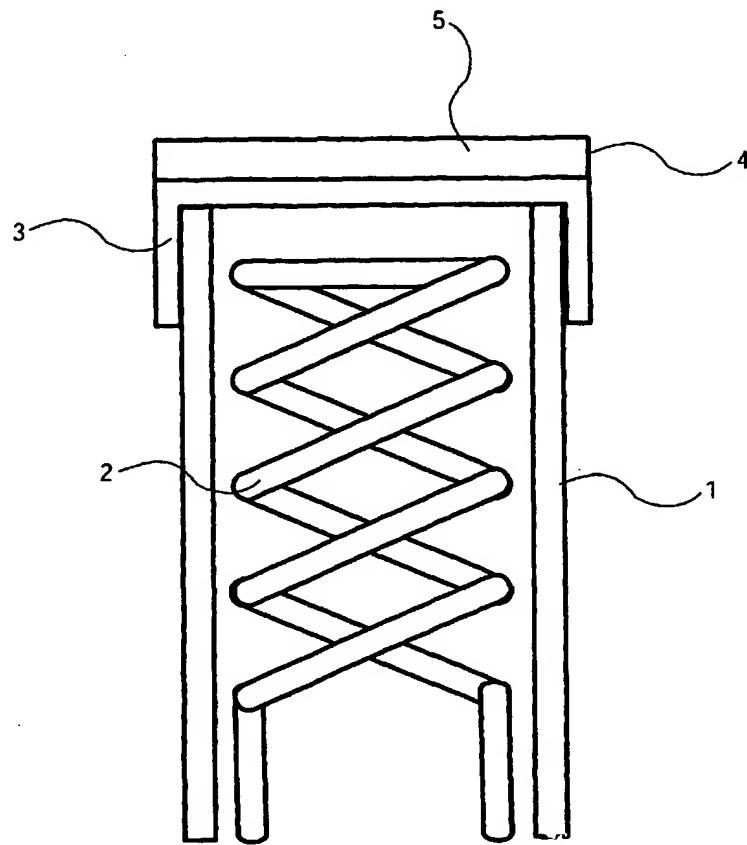
(71) Applicant (for AE, AG, AL, AM, AT, AU, AZ, BA, BB, BE, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CY, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, FR, GB, GD, GE, GH, GM, GR, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, SZ, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW only): **KONINKLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]**; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **GAERTNER, Georg, Friedrich [DE/DE]**; c/o Philips Intellectual Property & Standards GmbH, Weisshausstr. 2, 52066 Aachen (DE). **BARRATT, David, Steven [GB/DE]**; c/o Philips Intellectual Property & Standards GmbH, Weisshausstr. 2, 52066 Aachen (DE). **GOODHAND, Christopher, James [GB/DE]**; c/o Philips Intellectual Property & Standards

[Continued on next page]

(54) Title: VACUUM TUBE WITH OXIDE CATHODE



(57) Abstract: A vacuum tube, in particular a cathode ray tube, equipped with at least one oxide cathode comprising a cathode carrier with a cathode base of a cathode metal and a cathode body with a cathode coating of an electron-emitting material that comprises an alkaline earth oxide, selected from the group formed by the oxides of calcium, strontium and barium, and a sintering inhibitor.